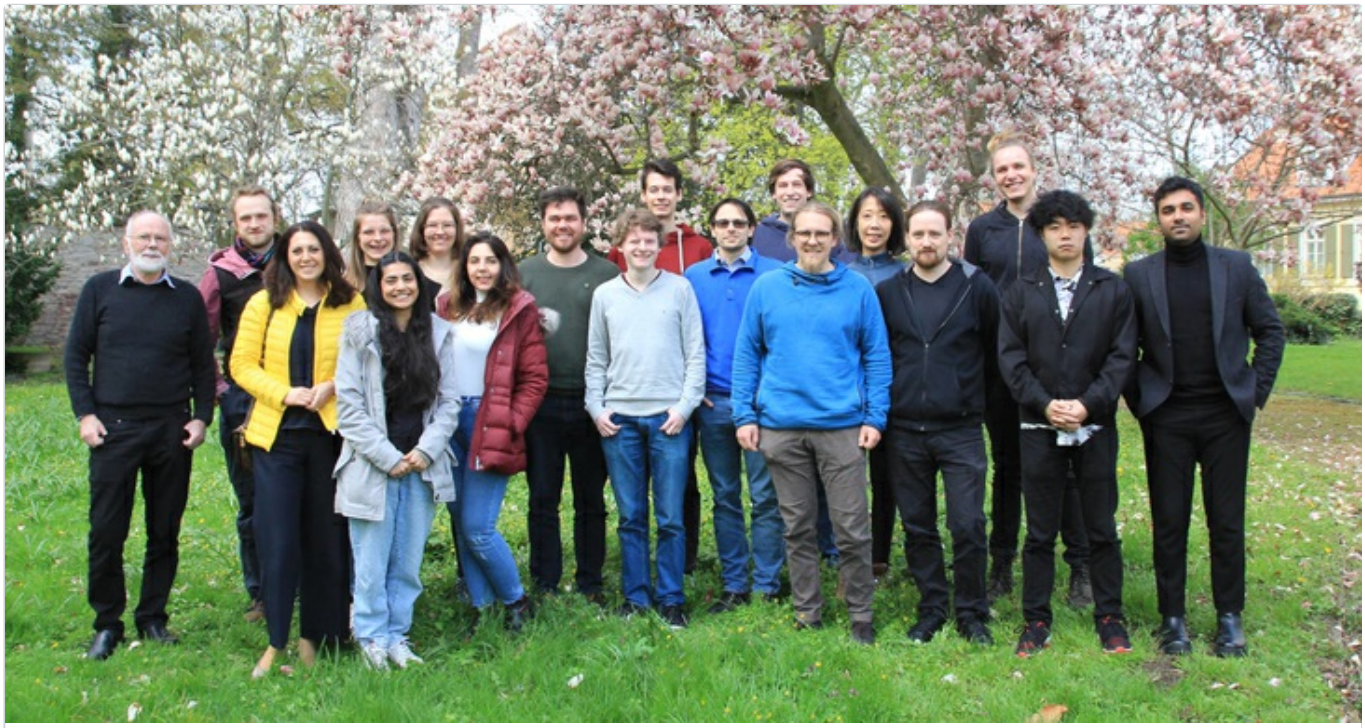
OTTO VON GUERICKE UNIVERSITÄT MAGDEBURG

CHAIR OF COMPUTATIONAL INTELLIGENCE



Chair of Computational Intelligence

Our major focus in research and teaching is on the algorithms of Computational Intelligence (CI) such as Multi-objective Optimisation and Decision-Making, Evolutionary Algorithms, Swarm Intelligence, Evolutionary Robotics and Swarm Robotics.

Computational Intelligence is an important tool for dealing with complex systems and can be used everywhere: automotive industry, medical applications, computational chemistry, geology, entrepreneurship, system design, games, biology, etc. In this area, we work on CI algorithms and their applications on multi-objective problems.

Take a closer look at our research blog, › CI BLOG (https://is.ovgu.de/Research/Research+Blog.html) , for more details about our recent research.

Furthermore, we investigate applications of Swarm Intelligence algorithms in swarm robotics at › SwarmLab (http://www.ci.ovgu.de/www.is.ovgu.de//SwarmLab.html) . Swarm Intelligence is a collective learning mechanism with the goal to achieve a global complex and intelligent behavior using simple rules on simple technical devices. Given the progress in the development o technical systems, Swarm Intelligence is getting more and more popular. Technical systems are getting smaller, low-cost, power and are distributed everywhere. Examples for such systems are sensor networks, computing resources and mobile devices such as micro-robots and smart objects to which we can apply swarm intelligence to achieve a desired and intelligent behavior.

News

Code on Zenodo

Research Visit from Japan

Research Collaboration with Tierärztliche Hochschule Hannover

Christmas 2023

SSCI 2023

robOTTO at Consumenta 2023

Christoph as AI-Talent Young Scientist Group Leader

Christoph in the MDR Podcast

PhD Defense Mahrokh Javadi

Ege Yüceel's Internship in SwarmLab

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